

Patent Abstracts of Japan

PUBLICATION NUMBER

57164585

PUBLICATION DATE

09-10-82

APPLICATION DATE

02-04-81

APPLICATION NUMBER

56049918

APPLICANT: TOSHIBA CORP;

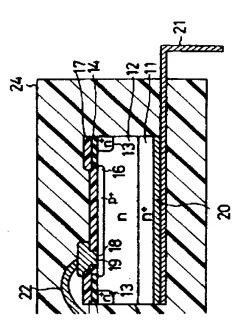
INVENTOR: UMEJI TADASHI;

INT.CL.

: H01L 33/00 H01L 23/30 H01L 31/04

TITLE

PHOTOSEMICONDUCTOR DEVICE



ABSTRACT :

PURPOSE: To inexpensively and easily enhance the luminous or light detecting efficiency, by coating organic resin film having required refractive index over the light emitting or receivig surface of a light emitting device or photo detector.

CONSTITUTION: An organic resin film 17 having required refactive index is coated over a part of the light receiving surface of a photosemiconductor element, e.g. photo detector 25. For example, polyimide resin film with the refractive index 1.9 is used for the resin film 17. The best thickness of the resin film 17 is that increased by odd number times of 1/4 of the wavelength to receive light in the product of thickness and refractive index. The element 25 is further preferably surrounded by an enclosure of resin with a refractive index 1.4~1.6, e.g. epoxy resin 24. Thus, the intensity of transmitted light on the light receiving surface can be enhanced to improve the light receiving efficiency. In the same manner, the luminous efficiency of a light emitting device can be enhanced.

COPYRIGHT: (C)1982,JPO&Japio